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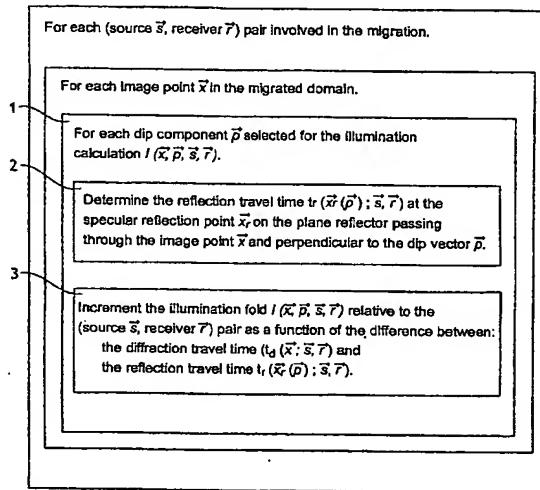
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(54) Title: METHOD OF ESTIMATING THE ILLUMINATION FOLD IN THE MIGRATED DOMAIN



(57) Abstract: The invention relates to an estimate of the seismic illumination fold  $(x, p)$  in the migrated 3D domain at an image point  $x$ , for a dip of vector  $p$  characterised in that the illumination fold  $I(z, p; s, r)$  is estimated for each (source  $s$ , receiver  $r$ ) pair in the seismic survey, by applying the following steps: - determination of the reflection travel time  $t_r(x_r(p); s, r)$  from the source  $s$  to the specular reflection point  $z$ , on the plane reflector passing through the image point  $x$  and perpendicular to the dip vector  $p$ , and then return to the reflector  $r$ ; starting from the diffraction travel time  $t_d(z; s, r)$  from the source to the said image point  $x$  and then return to the reflector  $r$ ; - incrementing the said illumination fold  $I(X, p; s, r)$  related to the said (source  $s$ , receiver  $r$ ) pair as a function of the difference between the diffraction travel time  $t_d(x; s, r)$  and the reflection travel time  $t_r(x_r(p); s, r)$ .

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